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10/566,510	01/30/2006	Antonius Adriaan Maria Staring	NL303963	7328

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EXAMINER	
LAFORGIA, CHRISTIAN A	
ART UNIT	PAPER NUMBER
2139	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/566,510	STARING ET AL.	
	Examiner	Art Unit	
	Christian LaForgia	2139	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 September 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment of 25 February 2008 has been noted and made of record.

2. Claims 1-13 have been presented for examination.

Response to Arguments

3. Applicant's arguments with respect to the prior art rejections of claims 1-13 filed on 25 February 2008 have been fully considered but they are not persuasive.

4. The Applicant argues that the prior art references fails to teach an encryption flag indicating that the user data stored in the associated sector are to be encrypted by a read-out device prior to being transmitted over a communication bus. The Applicant defines the encryption flag on page 9 of the remarks as

> a form of meta-data for the purpose of informing a source device that an encryption operation needs is required (or not required) at the source prior to communicating that data on a bus to a destination device.

The Examiner has reviewed the specification and has noticed that the specification fails to mention the expressions "encryption indication flag" and "meta-data." Since the Applicant has not indicated where in the specification support for the two expressions can be found and the Examiner was not able to find support upon reviewing the specification, the term encryption indication flag will be given its broadest reasonable interpretation and meta-data will be given no patentable weight since it does not appear in the claim language. The Examiner referred to http://www.webopedia.com for the common definitions of flag, which are as follows:

> (1) A software or hardware mark that signals a particular condition or status. A flag is like a switch that can be either on or off. The flag is said to be *set* when it is turned on.
>
> (2) A special mark indicating that a piece of data is unusual. For example, a record might contain an *error flag* to indicate that the record consists of unusual, probably incorrect, data.

Based on the definitions of flag above, the watermark of Ripley provides for a mark that signals a particular condition or status, namely that data needs to be encrypted before being transmitted over the communication bus (column 4, lines 40-52, column 6, lines 39-41); since the limitation has been met and the rejection is maintained.

5. In response to applicant's argument on page 9 that Ripley is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Ripley is reasonably pertinent to the particular problem with which the applicant was concerned, namely encrypting data prior to being transmitted over a bus, wherein the data includes some indication that it should be encrypted prior to said transmission.

6. In response to applicant's argument on pages 10 and 11 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies, such as the determining factor for encryption coming from meta-data, are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

7. Applicant's arguments regarding claims 2-13 amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the prior art references. Applicant argues that independent claims 8-11 and 13 recite similar subject matter as that of claim 1, and as such the

rejection is maintained for at least the grounds argued above. It is argued that dependent claims are allowable due to their dependency on the independent claims; since it has been shown that the rejection of the independent claims is proper, the rejection of the dependent claims is also held as proper and therefore maintained.

8. See further rejections set forth below.

Specification

9. The specification is objected to as failing to provide proper antecedent basis for the newly added claimed subject matter of claims 1-13. Claims 1-13 have been amended to change "encryption indication flag" to "encryption indication flags." The term flag fails to appear anywhere in the specification and it was not in the originally presented claims. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Appropriate correction is required.

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 1-3 and 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0091186 to Fontijn et al., hereinafter Fontijn, in view of U.S. Patent No. 7,111,169 B2 to Ripley et al., hereinafter Ripley.

12. As per claim 1, Fontijn teaches a record carrier (Figures 1, 4, and 5 [block 4]) for storing user data in sectors (paragraph 0003) and management information associated with said sectors (paragraph 0022, i.e. initialization vector stored in each header or sub-header of each block/sector).

13. Fontijn does not teach wherein said management information comprises an encryption indication flag indicating to a read-out device that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus.

14. Ripley teaches storing a media key on the storage medium (column 5, lines 40-44) and that the media key may serve to encrypt content at the source device before transmission to the destination device (column 5, lines 50-52). Ripley also discusses that the source device determines if the content is subject to watermarking (column 6, lines 26-31, column 7, lines 20-23), and if the content is subject to a watermark, than encrypting the content before transmission on the bus or transmitted to its destination (column 6, lines 39-41, column 6, lines 55-58, column 7, lines 23-25).

15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the management information comprise an encryption indication flag indicating to a read-out device that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus, since Ripley states at column 3, lines 50-53 that employing bus encryption ensures that unprotected watermarked content is protected from unauthorized access and/or reproduction while minimizing inconveniences by avoiding bus encryption for data read from the storage medium that does not require protection (Ripley, column 6, lines 13-24).

16. Regarding claim 2, Fontijn teaches wherein said management information is stored in a sector header or in an additional sub-code channel (paragraph 0022, i.e. initialization vector stored in each header or sub-header of each block/sector).

17. Regarding claim 3, Fontijn teaches wherein said management information further comprises an encryption amount information indicating which part or parts of the user data stored in the associated sector are to be encrypted (paragraphs 0022, 0024, i.e. initialization vector can be used to contain encryption control information).

18. Regarding claim 6, Fontijn teaches wherein said management information further comprises a decryption indication information indicating that the user data stored in the associated sector are to be decrypted by the read-out device before being encrypted again for transmission over said communication bus (paragraph 0048, i.e. data is decrypted and than re-encrypted).

19. With regards to claim 7, Fontijn teaches wherein a decryption key for decryption of the user data is dependent on at least the encryption indication flag (paragraphs 0039, 0040).

20. As per claims 8, 9, and 13, Fontijn teaches a read-out device, method, and computer program product for reading data from a record carrier (Figures 1, 4, and 5 [block 4]) storing user data in sectors (paragraph 0003) and management information associated with said sectors (paragraph 0022, i.e. initialization vector stored in each header or sub-header of each block/sector) comprising:

a reading unit for reading said user data and said management information from said record carrier (Figures 1 and 4 [block 5], paragraphs 0036, 0037),

a data interpreter for interpreting said management information (paragraphs 0039, 0040, i.e. determining if the data is encrypted or not, determining a decryption key corresponds to the encryption key),

an encryption unit for encrypting user data of sectors for which the associated encryption indication flag indicates that said user data are to be encrypted (Figure 4 [block 10], paragraphs 0022, 0048), and

an output unit for outputting said user data (Figure 4 [block 26], paragraph 0048).

21. Fontijn does not teach wherein said management information comprises an encryption indication flag indicating that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus.

22. Ripley teaches storing a media key on the storage medium (column 5, lines 40-44) and that the media key may serve to encrypt content at the source device before transmission to the destination device (column 5, lines 50-52). Ripley also discusses that the source device determines if the content is subject to watermarking (column 6, lines 26-31, column 7, lines 20-23), and if the content is subject to a watermark, than encrypting the content before transmission on the bus or transmitted to its destination (column 6, lines 39-41, column 6, lines 55-58, column 7, lines 23-25).

23. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the management information comprise an encryption indication flag indicating that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus, since Ripley states at column 3, lines 50-53 that employing bus encryption ensures that unprotected watermarked content is protected from

unauthorized access and/or reproduction while minimizing inconveniences by avoiding bus encryption for data read from the storage medium that does not require protection (Ripley, column 6, lines 13-24).

24. As per claims 10 and 11, Fontijn teaches a recording device and method for recording data on a record carrier comprising:

an input unit for receiving user data and a command to record said user data in sectors on a record carrier from a communication bus (Figure 5 [block 34], paragraphs 0014, 0051),

a command interpreter for interpreting said command so as to identify a decryption indication information included therein indicating which parts of the received user data are encrypted and are to be decrypted before recording on said record carrier (Figure 5 [block 34], paragraphs 0014, 0051),

a decryption unit for decrypting the parts of said user data for which the associated decryption indication information indicates that they are encrypted and are to be decrypted before recording on said record carrier (Figures 1 and 4 [block 8], paragraphs 0040, 0048), and

a write unit for recording said user data in sectors on said record carrier and a management information associated with said sectors (Figure 5 [block 34], paragraphs 0014, 0051).

25. Fontijn does not teach encryption indication flag indicating that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus.

26. Ripley teaches storing a media key on the storage medium (column 5, lines 40-44) and that the media key may serve to encrypt content at the source device before transmission to the destination device (column 5, lines 50-52). Ripley also discusses that the source device determines if the content is subject to watermarking (column 6, lines 26-31, column 7, lines 20-23), and if the content is subject to a watermark, than encrypting the content before transmission on the bus or transmitted to its destination (column 6, lines 39-41, column 6, lines 55-58, column 7, lines 23-25).

27. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the management information comprise an encryption indication flag indicating that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus, since Ripley states at column 3, lines 50-53 that employing bus encryption ensures that unprotected watermarked content is protected from unauthorized access and/or reproduction while minimizing inconveniences by avoiding bus encryption for data read from the storage medium that does not require protection (Ripley, column 6, lines 13-24).

28. Regarding claim 12, Fontijn teaches an encryption indication flag and that a decryption key for decryption of the user data is dependent on said encryption indication flag (paragraphs 0039, 0040).

29. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fontijn in view of Ripley as applied above, and in further view of U.S. Patent No. 6,378,072 to Collins et al., hereinafter Collins.

30. Regarding claim 4, Fontijn does not teach an encryption algorithm information indicating which encryption algorithm is to be used for encryption.

31. Collins discloses using a plurality of encryption algorithms to secure a communications bus (column 6, lines 5-27).

32. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an encryption algorithm information indicating which encryption algorithm is to be used for encryption, since it would have provided a multitude of methods to secure the communication bus against unwanted access during transmission (Fontijn, paragraph 0018).

33. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fontijn in view of Ripley as applied above, and in further view of U.S. Patent Application Publication No. 2003/0159037 to Taki et al., hereinafter Taki.

34. Regarding claim 5, Fontijn does not teach a key-hierarchy information indicating which key-hierarchy is to be used for determination of an encryption key to be used for encryption.

35. Taki teaches a key-hierarchy information indicating which key-hierarchy is to be used for determination of a content key (Figures 4, 8, 23, paragraph 0001).

36. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a key-hierarchy information indicating which key-hierarchy is to be used for determination of an encryption key to be used for encryption, since Taki states at paragraph

0001 that a key hierarchy is used for digital rights management and to ensure authorized use of the content.

Conclusion

37. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

38. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian LaForgia whose telephone number is (571)272-3792. The examiner can normally be reached on Monday thru Thursday 7-5.

40. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L. Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

41. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christian LaForgia/
Primary Examiner, Art Unit 2139

clf